

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

Purchasing Receipts

ACI001-VC 6 1 Net 30 M17-4-H1150 17-4 SS Round Bar 2.000": MATERIAL: 17-4 PH CONDITION H1150 receive ft R150 receive ft R150 Reseive ft R150 R	PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	То
8 M1018R3.125 MATERIAL: AISI 1018 Round Bar 3.125 MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR	O039087	ACI001-VC	6	1	Net 30	R2.000	Bar 2.000" : MATERIAL: 17- 4 PH CONDITION				6	3/6/2018	6		S049642	Stock	3/9/2018	\$ 100.33 / ft	0		S
Bar 3.125 MATERIAL: AISI 1018- 1025 ROUND BAR M1010S20GA AS PER MIL- S-7097 OR			7			R1.500	Bar 1.500"" : MATERIAL: 17- 4 PH CONDITION				8	3/9/2018	8		S049643	Stock	3/9/2018	\$ 56.09 / ft	0		\$4
			8				Bar 3.125 MATERIAL: AISI 1018- 1025 ROUND BAR M1010S20GA AS PER MIL- S-7097 OR						8		\$049644	Stock	3/9/2018	\$ 60.38 / ft	0		\$2

Plex 3/9/2018 11:33 AM Dart.Dubois.Pascal



Dart Aerospace Ltd 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

Tel (613) 632-5200

PURCHASE ORDER PO039087

ACI001-VC Supplier:

Ship To:

Acier Ouellette Inc. 935 Boul. Du Havre

Valleyfield QC

J6S 5L1 Canada Phone: 800 667 4248 Fax: 450 377 5696

1270 Aberdeen Street

Hawkesbury

ON

PO No:

PO039087

PO Date:

2/22/18

Due Date: Purchase Order 2/28/18

Revision:

Revision Date: Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

Special Comments: quotation # sou0086168

K6A 1K7 Canada Phone: 613-632-5200 Items Extended Unit Received Order Due Price (CAD) Price Quantity Balance Supplier Quantity Date Status Description 8 ft \$101.01375/ft \$808.11 Line Part No O(ft Part 8 ft Firmed 3/2/18 Item 6061-T6 Sheet 1.250" M6061T6S1.250X14.000 Thick x 14.000" Wide DAS MATERIAL: 6061-T6/T62 2 2 ALUMINUM SHEET AS MAR 0 6 2018 PER QQ-A-250/11 OR 0.39 AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 \$57.56 \$2.878/ft 20 ft 20 ft Firmed 2/28/18 AISI 4140 Quenched MT-4140QT-R0.625 &Tempered Steel Round 2 Bar 0.625" Dia. MAR 0 1 2018 AISI 4140 Q&T Round Bar MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER 9 111 ASTM 4140 QT OR ASTM 4142 QT 6 ft \$37.57666/ft \$225.46 AISI 4140 Q&T Round Bar Firmed 2/28/18 6 ft MT-4140QT-R2.750 3 MAT'L: AISI 4130 QUENCHED & MAR 0 1 2018 TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT 6 ft \$154.44341/ft \$952.45 AISI 4140 Q&T Round Bar Firmed 2/28/18 6.167 ft 0 ft MT-4140QT-R3.750 : MAT'L: AISI 4130

Line Item Note please cut bar in half to heavy for receiving

QUENCHED &

AS PER

4142 QT

TEMPERED ROUND BAR

ASTM 4140 QT OR ASTM

2/2018			Items				Received		Unit	Extende
1 4L	,	Supplier			Due	Order	Quantity	Balance	Price (CAD)	Price
Line	Part	Part No	Description	Status	Date	10 ft	0 ft	10 ft	\$4.664/ft	\$46.6
S 5	MT-4140QT-R1.000		AISI 4140 Quenched &Tempered Steel Round Bar 1.000" Dia. AISI 4140 Q&T Round Bar : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	2/28/18	10 10			7327 \$100.3333/ft	\$602.0
			17-4 SS Round Bar 2.000"	Firmed	3/6/18	6 ft	Q ft	6 π	\$100.5555/10	DA
6	M17-4-H1150-R2.000		: MATERIAL: 17-4 PH CONDITION H1150				6		R 0 9 2018	9-8
			receive ft 17-4 SS Round Bar 1.500"	Firmed	3/9/18	7.667 ft	0(ft)		\$56.08744/ft	SEAS
7	M17-4-H1150-R1.500		: MATERIAL: 17-4 PH CONDITION H1150	1 111100	156.0		8	AM	R 0 9 2018	11 9-89
			receive ft		0.10.14.0	8 ft	Q ft	8 ft	\$60.375/ft	\$483.0
8	M1018R3.125		MATERIAL: AISI 1018- 1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM	Firmed	3/9/18	OIL	8	MAR	0 9 2018	DAS 11 9-89 \$136.7
			A108	Firmed	2/28/18	10 ft	O ft	10 ft	\$13.676/ft	\$130.7
9	MT-HRS-R-2,500		Hot Rolled Steel Round Bar 2,500				10 v	W 12	2-3-27	
	please cut bar in half to h	neavy for rec	ceiving			20 ft	. 0 ft	20 ft	\$4.25/ft	\$85.0
ine Item Note 10	MT-A513-T- 0.750W0.188		Steel Round Tubing	Firmed	2/28/18				?-7-27	
	0.730		0.75"dia. x 0.188" Wall				2.6	40 ft	\$0.99625/ft	\$39.8
11	M6061T6R0.625	2	6061-T6 Round Bar .625" : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft			40 ft 96 ft	9C y	ĺĈ	\$1.0897222/ft	\$104.6
12	M6061T6R0.563		6061-T6 Round Bar .563 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Limen	2.20110		96 v	18-	3-77	

. \$	1				Due		Received Quantity	Palance	Unit Price (CAD)	Price
Line	Part	Supplier Part No	Description	Status	Date 2/28/18	Quantity 4 ft	Quantity) 4 ft	\$28.75/ft	\$115.
13	M6061T6R2.375		6061-T6 Round Bar 2.375" : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221				4	MAR (6 2018	7/15 44 1-63
14	M6061T6R3.750		receive ft 6061-T6 Round Bar 3.750" : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM	Firmed	2/28/18	4 ft	Ø€)) 4 ft	\$56.25/ft DAS \$44 \$-39 MAR 0 6 201	
15	M6061T6R6.250		B221 receive ft	Firmed	2/28/18	4 ft	4 4	4 ft	\$147.00/ft DAS \$-80 R D 6 2018	\$588.

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit A049 supplier awareness www.dartaerospace.com for further explanation.

Plex 2/22/18 1:26 PM dart.lavoie.chantal

Billed to

Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

DELIVERY - CLIENT

CO00075634

935, Boul. du Hâvre Salaberry de Valleyfield (Québec) J6S 5L1 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Date Customer N°

CLI0001056

2018/02/23

2018/03/09

039087 Josianne Bourdon

Your order N°

Delivery date

Processed by

OUELLETTE VALLEYFIELD

Salesman

Carrier

Net 30 Days

Page

Credit Terme

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction F-M	Delivery Route	5		Page	Ф		н			
Product Description	Weight	0	I/M		PCS NB	B	I	Internal Use Only	II Use	Only
	a cigir	44	0/14	CMD	EXP	В/0	NI	SI	C	TUO
1 ROUND SS 2 17-4 NS	64.08	6.00	PI_\$CLB				-			
RSS-2174 10131							`)	
186					6		6		-	
HEAT: \$H1181-G5011 AC13837-JG-07/03					1			MAR 0	9-89 88-6	-50
2 ROND STAINLESS 1 1/2 17-4 RANDOM NS	45.48	7.67	PI_\$CLB							
RSS-112174-V 8868					14		N		S	
1 X 92"					18		C	10	9-89	
ACI3835-JG-07/03								Z	MAR 0 9 2018	2018
3 ROND CR 3 1/8 1018 NS	208.56	8.00	PI_\$CLB				•)	ח	
RCR-318 10132					,		1	- S		

NIR: R-109516-6

1 X 8' (HEAT: A173355

1+p,

9-89

AC13836-GR-07/03

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.

, Ontario,

Salesman Processed by

Josianne Bourdon

DELIVERY - CLIENT

C000075634

Shipped to Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Salaberry de Valleyfield (Québec) J6S 5L1 935, Boul. du Hâvre ACIER OUELLETTE INC. Date Your order N° **Delivery date** Customer N° 039087 2018/02/23 2018/03/09 CLI0001056 00:00

HAWKESBURY, Ontario, K6A 1K7 Instruction Ţ Delivery Route Att : CHANTAL LAVOIE Tél.: 613-632-5200 5 Page **Credit Terme** Carrier ~ Net 30 Days OUELLETTE VALLEYFIELD

Conditions:		Product Description	
			00
Total Weight (Lbs): 318.12		Weight	Delivery Noute
: 318.12	43	Otv	U
	0,	U/M	
NIR: R-109516-6	CMD		. 490
09516-6	EXP	PCS NB	(
	В/О	₩.	
	NI		1
	I	Inter	
	s C	nal Us	
	TUO	Internal Use Only	

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge Prepared By: Time

	4
Customer's Signature	
nature	

Total (\$CAD)

75634 CERTIFICAT D'ESAIS

Page 01 of 02

Certification Date 7-MAR-2018

Invoice Number T376681

CUSTOMER ORDER NUMBER NUMÉRO DE COMMANDE DU CLIENT

AC00013837

PART NUMBER/NUMÉRO DE PIÈCE

510451

SOLD TO: VENDU À: ACIER OUELLETTE INC.

SHIP TO:

DIVISION SALABERRY DE VARXETTE DE

SALABERRY-DE- VALLEYFIELD

935, BOUL. DU HAVRE OC

BAR

ACIER OUELLETTE INC. DIVISION SALABERRY DE VALLEYFIELI 935, BOUL. DU HAVRE

J6S 5L1SALABERRY-DE- VALLEYFIE

QC J6:

SH1181-G5011

COND H1150

ITEM: 510451

ASTM A564

Line Total: 128

Specifications:

AMS 5643 U

ASTM A564 T630 M13

P

0.024

ASME SA564 T630 M13

ASTM A388/A388M 16

CHEMICAL ANALYSIS

S

0.001

NI

4.36

CR 15.33

MO 0.20

CU

C

0.02

NBTA

SI

0.45

TA

3.40

0.22

0.0031

MN

0.61

RCPT:

R301322

COUNTRY OF ORIGIN : TAIWAN

MECHANICAL PROPERTIES

DESCRIPTION COND H1150

YLD STR KSI 112.0

ULT TEN KSI 138.0

%ELONG %RED HARDNESS IN 02 IN 22.0

IN AREA 75.0

RC 32

GRAIN SIZE :6 -

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. ./Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport encontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport renconne les spécifications décrites ci-

> MANAGER QUALITY ASSURANCE GÉRANT DE L'ASSURANCE QUALITÉ

same heesprei

CERTIFICATE OF TEST CERTIFICAT D'ESAIS

Page 02 of 02

Certification Date 7-MAR-2018

CUSTOMER ORDER NUMBER NUMÉRO DE COMMANDE DU CLIENT

AC00013837

Invoice Number T376681

PART NUMBER/NUMÉRO DE PIÈCE 510451

ACIER OUELLETTE INC.

ACIER OUELLETTE INC.

SOLD TO: VENDU À:

DIVISION SALABERRY DE VALLSHIFTOLD

DIVISION SALABERRY DE VALLEYFIELI

935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD OC

EXPÉDIÉ À:

935, BOUL. DU HAVRE J6S 5L1SALABERRY-DE- VALLEYFIE

QC J65

Description:

17-4 CF BAR COND H1150

ASTM A564

Line Total: 128 LB

2 RD X 12' R/L

SH1181-G5011

MATERIAL IS FREE FROM MERCURY CONTAMINATION

NO WELD REPAIR PERFORMED ON MATERIAL

THERMAL TREATMENT: OK

SOLUTION TREATMENT 1900 +/- DEGREE F>30 MIN/INCH

FAST COOLED TO BELOW 90 DEGREE

MACRO: OK MICRO1:

MICRO CONTAINS NO MORE THAN 5% FERRITE

COMMENTS

country of origin: taiwan reduction ratio 56.3:1

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Material did not come in sontant with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-

same beefree

MANAGER QUALITY ASSURANCE GÉRANT DE L'ASSURANCE QUALITÉ

0.75630



METALLURGICAL TEST REPORT

Certificate: 347471 02

NORTH AMERICAN

STAINLESS

Customer: 0245 001

P807462-423 LP 67199

Your Order: PRODUCT

ROUND-BAY, Smooth Turned, Condition H-1150 3.
*ASIMI A564/10, ANG 27500, ANG-E-68758, NICH 57D 1685A
*ANG 2303, ANG 56437, ASNE 8A564/07, MACRO OX, EM 10204 3.1
*TEMPERED @ 11507 FOR 4 HOURS BIN AND AIR COOLED TO ROOM TEMP ANNEALED @ 19007 FOR 1 HOUR MIN AND AIR COOLED TO ROOM TEMP FINE GRAIM, EN 10204 3.1

SOLUTION AND. & 1900F HIM FOR 1 HOUR PER INCH & AIR COOLED

DESCRIPTION:

Red Ratio: 32.0 :1 Item Code: 510447

Beat Treat Code: 43,759

Corrosion

Leg Length:

144.00 in

Dda/Thk:

Findsh: Steal: Date:

10/25/2017 Page: 1 Of 2

Ghent, KY 41045-9615 (502) 347-6000

630(17-67 CF-Temper

Langth:

REMARKS:

COMPLIES W/HEQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE 2011/65/KU.ROHS. EAF+AOD+CC. NO WELD HEFAIR. HELTED AND NO IN USA FREE FROM MERCURY AND LOW MELVING ALLOY CONTANTINATION

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	S.	fit.	
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		Bundle Weight Bundle Weight Bundle Weight Bundle Weig	
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EC 1702		Bundile	
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ficates		Bundile	
L2323		Wedget	

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HEMICAL

RYLLRI

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CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per astm 1751/14a

(FIE)

		, A955	MAS Heat
		OU.	Supplier Heat CM
NI		BB	õ
.0146	14 M	. 033	Ω Ω
.56	8 IB	.274	38 CB
-0130	7A %	. 05	% CO
-0025	% III	15.31	CR %
		3.16	% CO
		.76	% BOX
		-02	₩ OM
		-021	E AP
		\$.26	NI A
		.020	1d 30

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в 107974 к г	
×	4 4 4 W
282.0	BHN Surf HB H1150
302.0	
113.25	.278 H1150 UMS H1150 RA H1150 Ring H1150 Grain
138.38	UTS HIISO
65.79	* 0511X YE
21.30	% 4D
8.0	Grain Mo.
.15	Ferrite %
.31	Mo.
.16	SEV.

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Dept.Mgr. Technical

KRIS LARK



METALLURGICAL TEST REPORT

Ghent, KY 41045-9615 6870 Highway 42 East (502) 347-6000

Certificate: 347471 02

Customer: 0245 001

MAB Order: Your Order: P807462-423 67199

PRODUCT

Round Bar, Smooth Turned, Condition H-1150 ASTM A564/10, AMS 2750D, AMS-H-6875B, MIL STD 1685A AMS 2303, AMS 3643T, ASME SA564/07, MACHO OK, ES 10204 3.1 TEMPERED @ 1150F FOR 4 HOURS MIN AND AIR COOLED TO ROOM TEMP ANNEALIED @ 1900F FOR 1 HOUR MIN AND AIR COOLED TO ROOM TEMP

SOLUTION ANN. & 1900F MIN FOR 1 HOUR PER INCH & AIR COOLED

DESCRIPTION:

FINE GRAIN, MH 10204 3.1

Red Ratio: 32.0 :1 Item Code: 510447

Heat Treat Code: 43,759

Leg Length: Dia/Thk: Finish: CF-Temper 1.5000 in

144.00 in

Steel

Date: 10/25/2017 630(17-4)

Bage:

3 OF

Corresion Length:

REMARKS:

COMPLIES W/HMQDIREMINTS OF DEAR 252.225-7009 MU DIRECTIVE 2011/65/HU.HGRS. EAST-AOD+CC. NO WELL REPAIR. MELYED JUND NEG IN USA FREE PROM MERCURY AND LOW MELTING ALLOY COMPANINATION

	BJ07974	Bundle
	3005	Bundle Weight
		Bundile
		Wedght
		Bundle
		Weight
		Bundle
		Wedght
		Bundile
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		Bundile
The Street of Street of Street		Wedgat
		Bundle
SOWN STREET, S		Bundle Wedght
		Bundle
WARDING TO STREET, ST.		Bundle Meight
		Sundie W
The state of the s		Wedgat

Lab Accreditation Bureau, 180/IRC 17025, Centificates 12323

CHEMICAL ANALYSIS CDI(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/16a

		A955	MAS Reat
	84		MAS Heat Supplier Heat CM
		B	at CM
	5.3		
		6.	

MECHANICAL PROPERTIE ĪQ

BJ07974 R L 91.00 99.00 94.00 95.00 75.0		пон	Impact1	Dapact	Impact	Top Avg	duz dur
	BJ07974	R L	91.00		94.00	95.00	75.0

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Dept.Mgr. Technical

KRIS LARK

RTIFICATE OF TEST **CFRTIFICAT D'ESAIS**

Page 01 of 01

Certification Date 5-MAR-2018

Invoice Number T376682

CUSTOMER ORDER NUMBER NUMERO DE COMMANDE DU CLIENT

FRANCINE PART NUMBER/NUMÉRO DE PIÈCE

SOLD IU: VENDU À: DECORATION METALLIQUE G.R.SHIRGO:

509 CURE BOIVIN

BOISBRIAND QC J7G 2A8

DECORATION METALLIQUE G.R. INC

509 CURE BOIVIN

BOISBRIAND QC J7G 2

Description: 1018 CF BAR ASTM A108

HEAT : A173355

ITEM: 501158

Line Total: 534 LB

Specifications:

ASTM A108 13

ASTM A29/A29M 16

JDM AO QL-2

CHEMICAL ANALYSIS

NI CR C MN P s si 0.26 0.07 0.17 0.021 0.008 0.66

CU N 0.034 0.011 0.0003 0.20

RCPT: R403562

COUNTRY OF ORIGIN : USA

IDEAL DIAMETER : 0.53 IN GRAIN SIZE :5 - 8

STRAND CAST MATERIAL IS FREE FROM MERCURY CONTAMINATION

The above data were transcribed from the manufacturer's Certificate of Test after verification

will meet the applicable requirements described herein, including any specification forming a part of the description. ./Par les présentes, nous certifions que le matériel couvert par ce rapport

NO WELD REPAIR PERFORMED ON MATERIAL

source/melted: steel dynamics (usa)

red ratio: 17.5:1

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifique que le matérie convert par ce rapport rencontre les spécifications décrites cihaul.

JOANNE DESPRES

MANAGER QUALITY ASSURANCE GÉRANT DE L'ASSURANCE QUALITÉ 29:67/2018 03:57

for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des specifications inscrites sur le certificat. We hereby certify that the material covered by this report

rencontre les spécifications décrites ci-haut The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: _DATE: _	MIO18 R3-125 MAR 0 9 2018	PO / BATCH NO.: <u>(</u>	239087/5049644
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	Yes 8'	THICKNESS ORDERED: _ THICKNESS RECEIVED: _ SHEET SIZE ORDERED: _ SHEET SIZE RECEIVED: _	3.125 N/A V/A

DESCRIPTION	NCR (Chec Y/N)	COMMENTS
SURFACE DAMAGE	Y	N)
CORRECT FINISH		N
CORROSION	Y	N)
CORRECT GRAIN DIRECTION	(Y)	N .
CORRECT MATERIAL PER M-DRAWING	(A)	N Astm A10X
CORRECT THICKNESS	(Y) I	N
PHOTO REQUIRED	Y (N) , ,
CORRECT REF # TO LINK CERT	(M)	N Heat# A173355
CORRECT MATERIAL IDENTFICATION	0	N
CORRECT M# ON THE MATERIAL	(8)	N
DOES THIS MATERIAL REQUIRE		
ENGINEERING SIGN OFF	Y (1	N)
DOES THIS REQUIRE AN		3
EXTRUSION REPORT	Y /	(V)

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.							
RECORD RESULTS BELOW							
HRC HRB DUR A DUR D WEBSTI							
TYPE OF MATERIAL							
SIZE OF TEST SAMPLE							
HARDNESS / DUROMETER READING							

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS 11	SIGNED OFF BY:
DATE:	9-89 MAR 0 9 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

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MFG. APPR.
APPROVED
DE APPR.
DATE 12 DRAWN DESIGN NEW ISSUE REFORMAT, ADD ASTM A 108, ADD TOLERANCES 12.09.05 CP DESCRIPTION
DESCRI 1018-1025 ROUND BAR SCALE

H 2012 -09- 2 4 FILMOR

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PART NUMBER: SPECIFICATION:

M1018-R D.DDD WHERE D.DDD = DIAMETER IN INCHES

TOLERANCES:

PER ASTM A108 AS FOLLOWS:

EG. 7/8" ROUND BAR = M1018-R0.875

SIZE UP TO 1.5" INCL OVER 1.5" TO 2.5" INCL OVER 2.5" TO 4.0" INCL OVER 4.0" TO 6.0" INCL OVER 6.0" TO 8.0" INCL

TOLERANCE +0.000/-0.002 +0.000/-0.003 +0.000/-0.004 +0.000/-0.005 +0.000/-0.006

PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR

MIL-S-7097 OR ASTM A108

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MITTER	-4- AR (. <i>Hį</i> 192	150 R 1.300 PO / BATCH NO.: 039087/50490
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	81		THICKNESS ORDERED: 1.200 THICKNESS RECEIVED: 1.200 SHEET SIZE ORDERED: 1.400 SHEET SIZE RECEIVED: 1.400
DESCRIPTION	(Ch	CR leck (N)	COMMENTS
SURFACE DAMAGE	Y	M)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	(Y)	M	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Astur A564
CORRECT THICKNESS	(Y)	N	1 10 144 1 1 1 1 1 1 1
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(4)	N	Heat # 5361/
CORRECT MATERIAL IDENTFICATION	(Ÿ)	N	
CORRECT M# ON THE MATERIAL	B	Ν	
DOES THIS MATERIAL REQUIRE	_		
ENGINEERING SIGN OFF	Υ	N	
DOES THIS REQUIRE AN		>	
EXTRUSION REPORT	Υ	(N)	
			a a

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.							
RECORD RESULTS BELOW							
	HRC	HRB	DUR A	DUR D	WEBSTER		
TYPE OF MATERIAL							
SIZE OF TEST SAMPLE							
HARDNESS / DUROMETER READING							

testers located in the Quality Office

C	C 18 INSPECTION		ENGINEERING SIGNOFF (if requ	ired)
	INSPECTED BY:	DAS 11	SIGNED OFF BY:	
	DATE:	9-89MAR 0 9 2018	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: 17.4 PH / S17400 / TYPE 630 SS ROUND BAR GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD STRENGTH PER TABLE MINIMUM ULTIMATE STRENGTH PER TABLE 0

SPECIFICATION:

AMS 5643 OR ASTM A564

M17-4-| HHHHH- | R | XXXXX | WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW) | COND | O.D. | O.D. | XXXX = DIAMETER (IN INCHES)

(

CODE	CONDITION	MIN YIELD TENSILE STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI
(OMITTED)	(CONDITION A NOT ACCEPTABLE)	100	150
H900	H900	170	190
H925	H925	155	170
H1025	H1025	145	155
H1075	H1075	125	145
H1100	H1100	115	140
H1150	H1150	105	135
CONDA	(SOLUTION TREATED)		

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS

CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

EXAMPLES:

PART NUMBER M17-4-R4.000 M17-4-H900-R2.500 M17-4-H1025-R3.250 M17-4-CONDA-R0.750 PART 4.000 DIAMETER BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI 2.500* DIAMETER BAR H900 CONDITION 3.250* DIAMETER BAR H1025 CONDITION 0.750* DIAMETER BAR A CONDITION DELEASE. III 2017 -10- 31 ELNI7-728

SCALE REV. C NTS SHEET 1 OF COPYRIGHT © 2005 BY DART AEROSPACE LTD SPINATE AND COMPLET ON THE EXPRESS CONDITION HAT IN THE PROPERTY OF ANY PROPIOSE ON COMPLET ON CANALIST TO ANY COMPLET POWER PROPERTY HATCHER PROPERTY HAT DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
M17-4-R UP 17-4 SS ROUND BAR TITLE 17.09.14 MFG. APPR. APPROVED DE APPR. DATE CHECKED REV. DESIGN DRAWN **APPROVED**

17.09.14 10.05.20

Q. S

ADDED MATERIAL CONDITION (CIR17-107)
REFORMAT PAGE STANDED TO
REFORMAT SAMERIAL (ZN D8-1), ADD AS64 SPEC (C8-1),
REF PAR (06-2204
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MATERIAL CONDITION TABLE:

MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE

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PART NUMBER: \bigcirc

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: ¿ DATE: _	MAR 0 9 2018	PO / BATCH NO.:(<u>039087/504</u> 9642
MATERIAL CERT REC'D: _ QUANTITY RECEIVED: _ QUANTITY INSPECTED: _ QUANTITY REJECTED: _	7'es 6'	THICKNESS ORDERED: THICKNESS RECEIVED: SHEET SIZE ORDERED: SHEET SIZE RECEIVED:	2.000 2.000 N/A N/A

DESCRIPTION	(Ch	CR leck (N)	COMMENTS
SURFACE DAMAGE	Y	N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(7)	N	AMS 5643
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(Ñ)	
CORRECT REF # TO LINK CERT	(A)	Ñ	Heat # 5H1181-65011
CORRECT MATERIAL IDENTFICATION	Y	N	
CORRECT M# ON THE MATERIAL	(Ŷ)	N	
DOES THIS MATERIAL REQUIRE			
ENGINEERING SIGN OFF	Υ	(N)	
DOES THIS REQUIRE AN			
EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.						
RECORD RESULTS BELOW						
HRC HRB DUR A DUR D						
TYPE OF MATERIAL						
SIZE OF TEST SAMPLE						
HARDNESS / DUROMETER READING						

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89 MAR 0 9 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: 17-4 PH / S17400 / TYPE 630 SS ROUND BAR GRAIN MUST BE ALONG LENGTH OF BAR GRAINMUM YIELD STRENGTH PER TABLE MINIMUM VIELD STRENGTH PER TABLE MINIMUM ULTIMATE STRENGTH PER TABLE

SPECIFICATION:

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M174- HHHHH- R XXXXX WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)
X.XXX = DIAMETER (IN INCHES)

MATERIAL CONDITION TABLE:

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MIN ULTIMATE TENSILE STRENGTH (KSI) 150 190 145 145 135 MIN YIELD TENSILE STRENGTH (KSI) 100 170 145 125 115 105 H900 H925 H1025 H1075 H1100 H1100 CONDITION A (CONDITION A NOT ACCEPTABLE) CONDITION (OMITTED) CODE H900 H925 H1025 H1100 H1150 CONDA

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS

MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE

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CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

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EXAMPLES:

PART NUMBER M17-4-R4.000 M17-4-H900-R2.500 M17-4-H1025-R3.250 M17-4-CONDA-R0.750 PART 4.000" DAMETER BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI 2.500" DIAMETER BAR H900 CONDITION 3.250" DIAMETER BAR H1025 CONDITION 0.750" DIAMETER BAR A CONDITION

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FOR USED FRANCHESIS OF THE PRESSURE OF TH DART AEROSPACE ITD HAWKESBURY, ONTARIO, CANADA DRAWING NO.

M17-4-R 4 17-4 SS ROUND BAR DESCRIPTION TITLE 8 8 9 8 W CP 17.09.14 CHECKED MFG. APPR. APPROVED DE APPR. DESIGN DRAWN **APPROVED**

17.09.14 10.05.20

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ADDED MATERIAL CONDITION (CIR17-107)
REFORMAT PAGE 530 ADDED TO
REFORMATE MATERIAL (ZN D8-1), ADD A564 SPEC (C8-1),
REP PAR 108-2020
NEW ISSUE

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AMS 5643 OR ASTM A564

PART NUMBER:

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